

Washington State Institute for Public Policy

Benefit-Cost Results

Family Integrated Transitions (youth in state institutions)

Benefit-cost estimates updated June 2016. Literature review updated December 2014.

Current estimates replace old estimates. Numbers will change over time as a result of model inputs and monetization methods.

The WSIPP benefit-cost analysis examines, on an apples-to-apples basis, the monetary value of programs or policies to determine whether the benefits from the program exceed its costs. WSIPP's research approach to identifying evidence-based programs and policies has three main steps. First, we determine "what works" (and what does not work) to improve outcomes using a statistical technique called meta-analysis. Second, we calculate whether the benefits of a program exceed its costs. Third, we estimate the risk of investing in a program by testing the sensitivity of our results. For more detail on our methods, see our Technical Documentation.

Program Description: Family Integrated Transitions (FIT) is designed for juvenile offenders with the co-occurring disorders of mental illness and chemical dependency who are entering the community after being detained. Youth receive intensive family and community-based treatment targeted at the multiple determinants of serious antisocial behavior. The program strives to promote behavioral change in the youth's home environment, emphasizing the systemic strengths of family, peers, school, and neighborhoods to facilitate the change. FIT incorporates many of the therapeutic principles from Multisystemic Therapy, and Dialectical Behavior Therapy, as well as motivational enhancement and parent skills training. The first phase of the program lasts two to three months while youth are in custody. The second phase occurs in the community for four to six months.

Benefit-Cost Summary Statistics Per Participant							
Benefits to:							
Taxpayers	\$5,882	Benefit to cost ratio	\$1.73				
Participants	\$1,219	Benefits minus costs	\$8,616				
Others	\$16,323	Chance the program will produce					
Indirect	(\$3,001)	benefits greater than the costs	67 %				
Total benefits	\$20,424						
Net program cost	(\$11,809)						
Benefits minus cost	\$8,616						

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2015). The chance the benefits exceed the costs are derived from a Monte Carlo risk analysis. The details on this, as well as the economic discount rates and other relevant parameters are described in our Technical Documentation.

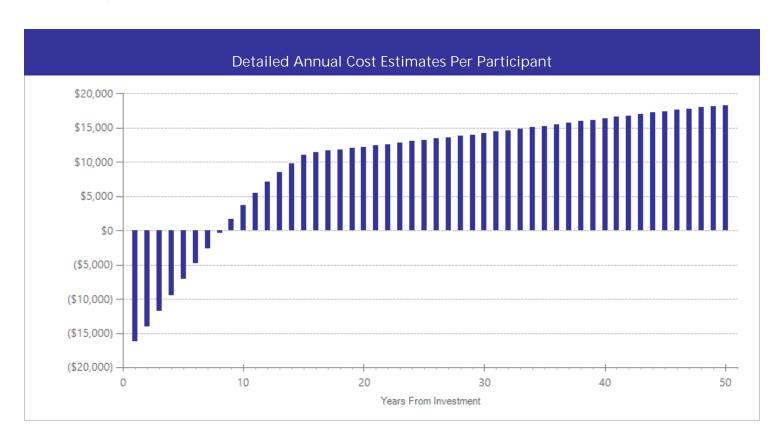
Detailed Monetary Benefit Estimates Per Participant Benefits from changes to:1 Benefits to: Others² **Participants Taxpayers** Indirect3 Total Crime \$15,889 \$23,679 \$0 \$5,186 \$2,604 Labor market earnings associated with high school \$1,359 \$617 \$279 \$2,881 \$625 graduation Health care associated with educational attainment (\$40)\$145 (\$159)\$73 \$19 Costs of higher education (\$100)(\$67)(\$31)(\$33)(\$231)Adjustment for deadweight cost of program \$0 \$0 \$0 (\$5,923)(\$5,923)Totals \$1,219 \$5,882 \$16,323 (\$3,001)\$20,424

^{3&}quot;Indirect benefits" includes estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

Detailed Annual Cost Estimates Per Participant								
	Annual cost	Year dollars	Summary					
Program costs Comparison costs	\$10,795 \$0	2008 2008	Present value of net program costs (in 2015 dollars) Cost range (+ or -)	(\$11,809) 10 %				

The per-participant costs, based on five months in the program, are from Barnoski, R. (2009). *Providing evidence-based programs with fidelity in Washington State juvenile courts: Cost analysis* (Doc. No. 09-12-1201). Olympia: Washington State Institute for Public Policy.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta-analysis. The cost range reported above reflects potential variation or uncertainty in the cost estimate; more detail can be found in our Technical Documentation.



¹In addition to the outcomes measured in the meta-analysis table, WSIPP measures benefits and costs estimated from other outcomes associated with those reported in the evaluation literature. For example, empirical research demonstrates that high school graduation leads to reduced crime. These associated measures provide a more complete picture of the detailed costs and benefits of the program.

²"Others" includes benefits to people other than taxpayers and participants. Depending on the program, it could include reductions in crime victimization, the economic benefits from a more educated workforce, and the benefits from employer-paid health insurance.

The graph above illustrates the estimated cumulative net benefits per-participant for the first fifty years beyond the initial investment in the program. We present these cash flows in non-discounted dollars to simplify the "break-even" point from a budgeting perspective. If the dollars are negative (bars below \$0 line), the cumulative benefits do not outweigh the cost of the program up to that point in time. The program breaks even when the dollars reach \$0. At this point, the total benefits to participants, taxpayers, and others, are equal to the cost of the program. If the dollars are above \$0, the benefits of the program exceed the initial investment.

Meta-Analysis of Program Effects										
Outcomes measured	No. of effect sizes	Treatment N	Adjusted effect sizes and standard errors used in the benefit- cost analysis					Unadjusted effect size (random effects		
			First time ES is estimated			Second time ES is estimated			model)	
			ES	SE	Age	ES	SE	Age	ES	p-value
Crime	1	105	-0.207	0.152	17	-0.207	0.152	27	-0.207	0.174

Meta-analysis is a statistical method to combine the results from separate studies on a program, policy, or topic in order to estimate its effect on an outcome. WSIPP systematically evaluates all credible evaluations we can locate on each topic. The outcomes measured are the types of program impacts that were measured in the research literature (for example, crime or educational attainment). Treatment N represents the total number of individuals or units in the treatment group across the included studies.

An effect size (ES) is a standard metric that summarizes the degree to which a program or policy affects a measured outcome. If the effect size is positive, the outcome increases. If the effect size is negative, the outcome decreases.

Adjusted effect sizes are used to calculate the benefits from our benefit cost model. WSIPP may adjust effect sizes based on methodological characteristics of the study. For example, we may adjust effect sizes when a study has a weak research design or when the program developer is involved in the research. The magnitude of these adjustments varies depending on the topic area.

WSIPP may also adjust the second ES measurement. Research shows the magnitude of some effect sizes decrease over time. For those effect sizes, we estimate outcome-based adjustments which we apply between the first time ES is estimated and the second time ES is estimated. We also report the unadjusted effect size to show the effect sizes before any adjustments have been made. More details about these adjustments can be found in our Technical Documentation.

Citations Used in the Meta-Analysis

Trupin, E.J., Kerns, S.E., Walker, S.C., DeRobertis, M.T., & Stewart, D.G. (2011). Family integrated transitions: A promising program for juvenile offenders with co-occurring disorders. *Journal of Child & Adolescent Substance Abuse, 20*(5), 421-436.

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Washington State Institute for Public Policy

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